

REMARKS

Claims 1-14 are pending in the application and stand rejected. Claims 9, 10, 12 and 13 are hereby canceled without prejudice or disclaimer.

Claims Rejected Under 35 U.S.C. § 102

Claims 1-14 are rejected under 35 U.S.C. § 102(e) as being anticipated by Wilson.

Applicants submit that claim 1 is patentable because Wilson fails to disclose each and every element of the claim. Claim 1 recites, *inter alia*,

a magnetic field detection unit mounted in a pen-shaped body which detects a tilt angle of the pen-shaped body based on a movement of the pen-shaped body;

an acceleration detection unit mounted in the pen-shaped body which detects respective axial direction accelerations of the movement of the pen-shaped body; and

a control unit which calculates absolute coordinates of the movement of the pen-shaped body from the tilt angle measured at the magnetic field detection unit and the acceleration measured at the acceleration detection unit;

wherein the control unit calculates a handwriting trajectory of a tip of the pen-shaped body based on the absolute coordinates of the movement of the pen-shaped body.

In the Response to Argument section of this Office Action, the Examiner asserts Wilson does disclose an acceleration unit mounted in the pen-shaped body which detects respective axial direction acceleration movements of movement of the pen-shaped body. (*Office Action*, p. 5). As support for this position, the Examiner contends Wilson discloses that “the orientation of the

pointer is defined in terms of its pitch, roll and yaw angle about the x, y, z axes of the coordinate system wherein the accelerometer signals representing the pitch and roll are use[d] to establish the rotation matrix that defines the composition of rotation.” (*Office Action*, p. 5). Then the Examiner concludes “the accelerometer of Wilson et al. does ‘detect respective axial direction accelerations of the movement of the pen-shaped body.’” (*Id.*).

However, in contrast to this position, Applicants respectfully note that the Examiner concedes within this argument that the orientation is obtained in terms of “pitch, roll and yaw angle about the x, y, z axes.” (emphasis added). This is in contrast to being along the x, y or z axes, which correlates to an axial direction. In other words, Applicants submit that rotating “about” an axis does not correlate to rotating in a axial direction. Rather, Wilson merely discloses that the accelerometer provides x, y and z axes orientation signals, i.e., pitch, yaw and roll. (col. 3, lines 15-20; col. 8, lines 16-42).

Thus, Applicants submit that Wilson fails to disclose, at least, an acceleration detection unit mounted in the pen-shaped body which detects respective axial direction accelerations,” as recited in claim 1. Additionally, because claims 4, 7 and 8 recite a similar feature, Applicants submit these claims are allowable for the same reasons set forth above. Finally, Applicants submit claims 2-3, 5-6 and 9-14 are allowable, at least by virtue of their dependency.

Additionally, Applicants also submit that Wilson fails to disclose, “a control unit which calculates absolute coordinates of the movement of the pen-shaped body from the tilt angle measured at the magnetic field detection unit and the acceleration measured at the acceleration detection unit,” as recited in claim 1.

Specifically, Wilson merely discloses the accelerometer and magnetometer provide x-axis, y-axis and z-axis orientation signals. In order to obtain the location, or absolute coordinates

of the pointer, Wilson relies on video input from video cameras. (col. 3, lines 64-67; col. 8, lines 37-59; *see* 3D location of pointer FIG. 8 step 806 and col. 15, lines 57-60). Consequently, the absolute coordinates of the pointer are determined wholly independent of the orientation. Rather, the orientation is used only with the location data (absolute coordinates) to determine where the pointer is pointing.

Thus, Applicants submit Wilson fails to disclose “a control unit which calculates absolute coordinates of the movement of the pen-shaped body from the tilt angle measured at the magnetic field detection unit and the acceleration measured at the acceleration detection unit,” as recited in claim 1. Additionally, because claims 7 and 8 recite a similar feature, Applicants submit these claims are allowable for the same reasons set forth above. Finally, Applicants submit claims 2-3, 9, 12, 13 and 14 are allowable, at least by virtue of their dependency.

Finally, Applicants submit Wilson fails to disclose “wherein the control unit calculates a handwriting trajectory of a tip of the pen-shaped body based on the absolute coordinates of the movement of the pen-shaped body,” as recited in claim 1. Rather, Wilson is merely directed to selecting objects using a wireless pointer 10 at objects distant from the wireless pointer 10. (col. 8, lines 16-22). No handwriting trajectory of the tip is contemplated by Wilson.

Thus, Applicants submit claim 1 is allowable for this additional reason. Additionally, because claims 4, 7 and 8 recited a similar feature, Applicants submit these claims are allowable for the same reasons set forth above with regard to claim 1. Finally, Applicants submit claims 2-3, 9, 12, 13 and 14 are allowable, at least by virtue of their dependency.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'David P. Emery', is written over a horizontal line.

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